Case 2225/1

Nonion de Montfort, 1808 (Foraminiferida): proposed designation of Nautilus faba Fichtel & Moll, 1798 as the type species

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Abstract. The purpose of this application is to designate the nominal species *Nautilus* faba Fichtel & Moll, 1798 as the type species of *Nonion* de Montfort, 1808. This is in conformity with the established concept of *Nonion* since its proposal.

- 1. The genus *Nonion* de Montfort (1808, p. 210–212) was originally described as: 'Coquille libre, univalve, cloisonnée, en disque, et contournée en spirale; mamelonnée sur les deux centres, le dernier tour de spire renfermant tous les autres; dos renflé, bouche arrondie, recouverte par un diaphragme ouvert en croissant contre le retour de la spire, qu'elle reçoit dans son milieu; cloisons unies'.
- 2. The type species by original designation is *Nautilus incrassatus* Fichtel & Moll, 1798 (p. 38). *Nonion* gained early acceptance and usage, being cited by de Blainville (1825, p. 143) and Deshayes (1832, p. 629) and has been consistently used as a valid genus name since. Family-group names, from sub-family to super-family, have been based on it; all have the authorship of Schultze (1854, p. 53) who published 'Nonionida'.
- 3. Although Fichtel & Moll (1798, pl. 4, figs. a-c) drew only one equatorial, lateral view to accompany the axial edge view of the test of *Nautilus incrassatus*, the bilateral symmetry which was shown by the axial view and implied in the accompanying brief description, together with its assignment to the planospiral genus *Nautilus*, led to the assumption that the genus *Nonion* de Montfort should be characterised by (inter alia) a planospiral, involute test with a bilaterally symmetrical, interiomarginal aperture. This interpretation has been universally and consistantly maintained in the usage of *Nonion*.
- 4. Our discovery, recognition and redescription (Rögl & Hansen, 1984) of the type specimens of *Nautilus incrassatus* have shown that the species is significantly different from the established concept of *Nonion. Nautilus incrassatus* is asymmetrical, a low trochospire, with its interiomarginal aperture extending into the spiral suture only on the more evolute side of the trochospire.
- 5. There is no doubt that the type specimens of *Nautilus incrassatus* belong to the taxon generally recognised as *Anomalinoides* Brotzen, 1942 (p. 23) which has as its type species by original designation *Anomalinoides plummerae* Brotzen, 1942 (= *Anomalina pinguis* Jennings, 1936). *Anomalinoides* has been extensively used for Cretaceous—

Cenozoic species since its original proposal. It is now evident that continued acceptance of *Nautilus incrassatus* as the type species of *Nonion* would involve a most unwelcome and widespread destabilisation in foraminiferan nomenclature.

- 5. In order to maintain stability, we have proposed (Hansen & Rögl, 1980; Rögl & Hansen, 1984) that the designation of *Nautilus incrassatus* as type of *Nonion* be set aside and *Nautilus faba* Fichtel & Moll, 1798 be designated instead. *N. faba* was one of the originally included species which conforms both to the original concept (de Montfort, 1808) and the current usage of *Nonion*. A lectotype of *N. faba* has been designated by Rögl & Hansen (1984, p. 65 and figures).
- 6. The International Commission on Zoological Nomenclature is accordingly asked:
 - (1) to use its plenary powers to set aside all previous designations of type species made for the nominal genus *Nonion* de Montfort, 1808 and to designate *Nautilus faba* Fichtel & Moll, 1798 as type species;
 - (2) to place on the Official List of Generic Names in Zoology the name *Nonion* de Montfort, 1808 (gender: masculine), type species, by designation in (1) above, *Nautilus faba* Fichtel & Moll, 1798;
 - (3) to place on the Official List of Specific Names in Zoology the name *faba* Fichtel & Moll, 1798, as published in the binomen *Nautilus faba* (specific name of the type species of *Nonion* de Montfort, 1808) and as defined by the lectotype designated by Rögl & Hansen (1984).

References

- Blainville, H. M. D. de, 1825. In Cuvier, M. F. (Ed.), Dictionnaire des Sciences Naturelles, vol. 35, F. G. Levrault, Paris.
- **Brotzen, F.** 1942. Die Foraminiferengattung *Gavelinella* nov. gen. und die Systematik der Rotaliiformes. *Sveriges Geologiska Undersökning. Afhandlingar och Uppsatser*, **36**(8), ser. C, no. 451: 1–60.
- Deshayes, G. P. 1832. Encyclopédie méthodique. Histoire naturelle des Vers, vol. 3, 1152 pp. Mme. V. Agasse, Paris.
- Fichtel, L. von & Moll, J. P. C. von, 1798. Testacea microscopica aliaque minuta ex generibus Argonauta et Nautilus ad naturam picta et descripta. 123 pp. Anton Pichler, Vienna.
- Hansen, H. J. & Rögl, F. 1980. What is Nonion? Problems involving foraminiferal genera described by Montfort, 1808 and the type species of Fichtel & Moll, 1798. Journal of Foraminiferal Research, 10: 173–179.
- Jennings, J. R. 1936. A microfauna from the Monmouth and basal Rancocas Groups of New Jersey. *Bulletin of American Paleontology*, 23(78): 161–232.
- Montfort, D. de, 1808. Conchyliologie systematique et classification méthodique des coquilles. Coquilles univalves, cloisonnées. vol. 1. 409 pp. F. Schoell, Paris.
- Rögl, F. & Hansen, H. J. 1984. Foraminifera described by Fichtel & Moll in 1798. A revision of *Testacea Microscopica*. Neue Denkschriften des Naturhistorischen Museums in Wien, vol. 3, 143 pp.
- Schultze, M. S. 1854. *Ueber den Organismus der Polythalamien (Foraminiferen) nebst Bemerkungen über die Rhizopoden im Allgemeinen*. 68 pp. W. Engelmann, Leipzig.